

Central Intelligence Agency



Washington, D.C. 20505

19 JUN 1985

MEMORANDUM FOR: (See Distribution List)

FROM:

[redacted]
Chief, International Security Issues
Office of Global Issues

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SUBJECT: Military Purchases of Civilian Helicopters [redacted]

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1. The attached memorandum examines the possibility of politically isolated or embargoed nations--such as Chile, South Africa, or Taiwan--following North Korea's lead in purchasing civilian model light helicopters for military purposes. We believe this possibility is enhanced by the availability of a wide variety of civilian light helicopters from Western Europe and the US and the number of firms that specialize in arming helicopters. [redacted]

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2. This memorandum was prepared by [redacted]
[redacted] Arms Transfers Branch, Office of Global
Issues. [redacted]

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3. Your comments and suggestions are welcome and may be addressed to me on [redacted]

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Attachment:

Military Purchases of Civilian
Helicopters [redacted]

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GI M 85-10167, June 1985, [redacted]

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DIA review
completed.

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SUBJECT: Military Purchases of Civilian Helicopters

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Central Intelligence Agency



Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

June 1985

Military Purchases of Civilian HelicoptersSummary

Politically isolated or embargoed countries are likely to find it attractive to purchase civilian model light helicopters for military purposes. We believe that the variety of firms in the Third World, Western Europe, and the US that specialize in arming helicopters increases the likelihood that South Africa, Chile, or Taiwan may purchase civilian helicopters and add a weapons capability. Unlike North Korea--which recently obtained 86 Hughes 500 helicopters through a West German firm--these countries would not need middlemen and could openly purchase civilian model helicopters on the international market. Customers in the Third World will continue to be attracted to civil transport helicopters that can be used in observation and military transport roles. [redacted]

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This memorandum was prepared by [redacted]
[redacted] Arms Transfers Branch, Office of Global Issues. The
analysis is based on information available as of 17 June 1985.
Comments may be directed to [redacted] Chief, International
Security Issues Division [redacted]

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GI M 85-10167

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Background

Many Third World countries have purchased civilian model helicopters to augment their military helicopter inventories. Based on a recent analysis of global helicopter sales, we estimate that approximately 15 percent of helicopters in service with Third World militaries are civilian models. Most of these helicopters were purchased legitimately, without any attempt to conceal the helicopters' ultimate military function. Most civilian helicopters have similar performance characteristics as their military counterparts. Some, however, are equipped with less powerful engines or less sophisticated avionics making them somewhat cheaper than military models and therefore more attractive (see annex).

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Some Third World countries have purchased civilian helicopters to circumvent a supplier's restrictive arms export policy. West Germany's arms export policy, for example, restricts the sale of military equipment to the Middle East. Some others have purchased civilian helicopters to mask a politically sensitive arms deal. For the most part, surreptitious transactions involve politically isolated countries. In addition to North Korea, several other countries have recently purchased civilian helicopters:

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Arming Civilian Helicopters

Some countries that purchase civilian helicopters arm them for air-to-ground missions with rocket pods, machine guns, and in some cases, anti-tank guided missiles. Iraq, for example, equipped approximately 10 of the BO-105s bought from Spain in 1982 with anti-tank guided missiles and may arm their recently purchased BO-105s. Similarly, North Korea will probably arm some of their 86 Hughes 500s with AT-3 ATGMs produced domestically.

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Arming civilian helicopters with rockets, missiles, or machine guns is facilitated by the variety of firms offering this service on the international market. The Swiss firm Oerlikon-Buehrle supplied 20 mm guns for Iraq's BO-105s, while the French firms Euromissile and SFIM added HOT anti-tank missiles. Cardoen, a Chilean firm, is designing a bolt-on kit to convert standard helicopters into gunships, according to USDAO Santiago. Several private US firms openly advertise this service in trade journals.

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Civilian model helicopters can perform important observation and troop transport duties with little or no modification. We believe that many of North Korea's Hughes 500s may be used in a troop insertion/infiltration role. (South Korea operates 195 similar Hughes 500 helicopters, which will complicate Seoul's efforts to detect North Korean infiltrations supported by their Hughes 500s.) Iraq has also devoted most of their BO-105s to observation and troop transport missions. We believe Chinese and Taiwanese military capabilities will improve as well from the mobility heavy- and medium-lift helicopters will add to their inventories.

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Outlook

Some politically isolated or embargoed nations in the Third World--such as Chile, South Africa, and Taiwan--may also try to purchase civilian model helicopters and arm them. We believe they will be attracted to light-weight helicopters of less than 10,000 pounds maximum take-off weight that are more agile, maneuverable, and difficult to detect than larger models. Unlike North Korea, which used a West German firm as a middleman, these countries could openly purchase civilian model helicopters on the international market from a wide variety of US and West European firms. According to USDAO Santiago, for example, a Chilean firm

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is considering the purchase of civilian Dauphin helicopters from France that would be armed in Chile and then sold to the Chilean military or be made available for export. We believe South Africa and Taiwan might also be attracted to arming civilian helicopters. Both countries field large professional militaries, but currently lack a sophisticated attack helicopter capability. We believe their domestic arms industries are sufficiently advanced to adapt guided anti-tank missiles to civilian helicopters. [REDACTED]

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Civilian model helicopters will continue to play an important role for Third World countries. The majority of these aircraft will be used for basic troop and equipment transport and observation duties. Jordan and Honduras for example, use US S-76 civilian helicopters for military missions. Likewise, the Venezuelan Air Force operates Bell model 412 medium-lift helicopters and the Royal Thai Army and Peruvian Air Force rely on Bell 214ST helicopters to transport troops. [REDACTED]

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Light Helicopters Available in Commercial Variants

Manufacturer	Model	Year Entered Service	Gross Take-off Weight	Weapons	Other Producing Nations	Remarks
UNITED STATES Bell Helicopter	204	1967	8500-9500	MG's, Rockets	Italy, Japan	ASW Version carries (2) MK44 torpedoes. Models 204 and 205 were basis for UH-1 series.
"	205		9500	MG's, Rockets	Italy	Twin-engine; Multiple variations.
"	222	1979	7850-8250			Jet Ranger, Long Ranger
"	206 B, L	1975	3200-4150		Italy	variations.
"	400	1986	5500			Twin Ranger. 7 pers.
"	47	1946	2850-2950	Light Wpns; One ASW version with torpedoes.	Italy, Japan	Police rescue, agriculture, military. In production in US until 1974. Hundreds exported.
Hines Aviation	H-2		1670			Utility, training.
"	H-5					Utility, training, agriculture.
Enstrom	F-28	1962	2350-2600			Now made by Spitfire, Ltd. Mark I & II. Utility, agriculture.
"	280	1973	2350-2600			Utility, agriculture.
Hiller Helic. Div. (Logerson Air-craft)	UH-12 series	1948	2800			Utility, agriculture (Military version is H-23 Raven.)
	FH 1100 A	1969	2750			Utility Note: RH 1100 variation is planned as a low cost gunship. For export. (1985)
Hillman	360		2200			Range with maximum external fuel is over 1500 miles.
Hughes	300		2050		Italy	Utility, Agriculture. Now built by Schweizer Co.

Manufacturer	Model	Year Entered Service	Gross Take-off Weight-lbs	Weapons	Other Producing Nations	Remarks
Hughes (Cont'd)						
"	500	1969	3000	Guns, rockets, ATGMs, Laser target designators.	Italy, Japan, Argentina	Executive, Util., Agric. MD, MG are military versions. Scout/Lt. attack functions.
"	530	1982	3100	Guns, rockets, ATGMs		Scout/Attack; Hot weather, High Altitude capability.
Robinson	R22(Alpha)	1979	1370			Training, commercial.
Brantly-Hynes	B-2B	1975	1670			Resumed production (after suspension) in 1983.
Sikorsky	S-55 (Whirlwind)	1953	7900		Great Britain	
"	S-62	1961	8100		Japan	Search & Rescue
Kamen	HH-43	1958				Search & Rescue; Many exported.
Piasecki	16H-34K (Pathfinder)		9600			Up to 15 person capacity; Twin engine.
Schentzow	Bee	1975	1685			Patrol, Recreation. Two seats.
Texas Helic. Corp.	Wasp A, B, C	1980	2450-3200			
Rotor Way	Scorpion	Not in production	1235			Kit-built, recreational.
FRANCE Aerospatiale	SA 315 (Llama)	1972	5070		Brazil, India	Based on Alouette II design; greater payload.

Manufacturer	Model	Year Entered Service	Gross Take-off Weight-lbs	Weapons	Other Producing Nations	Remarks
France (Cont'd) Aerospatiale	Alouette II, III	1955	3630-4960	MGs, ATGMs, Torpedoes	Romania (Alouette III) India	Hundreds delivered to over 70 countries.
"	SA 342 (Gazelle)	1971	4415	4 TOW or 6 HOT ATGMs	Yugoslavia, Egypt	Yugoslav version carries AT-3 ATGMs and SAM-7 for air-to-air.
"	SA 365 (Dauphin2)	1979	9039	AS.15TT missiles Guns		Twin-engine.
"	Ecureuil SA 360 (Dauphin)	1978 1976	4740-5290 5953		Brazil	Twin-engine. Up to 10 pers; Cargo, Rescue.
Helicopjet	Helicopjet	1979	2336			4 persons.
GREAT BRITAIN Westland	AH MK.1 (Lynx, Lynx 2)	1975	9600- 10,000	MGs, Cannon, ATGMs, Rockets, Torpedoes, Depth Charges.	France-Jointly Developed)	Multi-role; Army, Navy and export versions. Twin-engine.
Cierva Rotocraft	CR Twin		3450			Twin-engine
INDIA Hindustan: Aeronautus, Ltd. (HAL)	Alouette III	1960	4960	MGs, ATGMs, Torpedoes	Licensed Prod. from Aerospatal (FR)	
"	Cheetah	1969	3860		Licensed from Aerosp. (FR)	Indian version of Llama. Exported to over 24 countries.
ITALY Breda Nardi	269c (NH300C)	1972	2050		License from Hughes (US)	Trainer; Law Enforcement. (Hughes 300)

Manufacturer	Model	Year Entered Service	Gross Take-off Weight-lbs	Weapons	Other Producing Nations	Remarks
Italy (Cont'd)						
Breda Nardi	369d (NH500D)	1977	3000	Guns, Rockets ATGMs	License from Hughes (US)	Trainer; Law Enforcement. (Hughes 500)
G. Agusta	AB205	1969	9500		License from Bell (US)	Iroquois variant.
"	AB 206B BL1	1966	3200-4050		License from Bell (US)	Jet-Ranger/Long Ranger Variants.
"	A 109A	1977	5730	TOW, MGS Rockets		Up to 8 pers. Twin-engine.
"	47G, AB47J	1954	2950		License from Bell (US)	Police, Armed forces; High-altitude operations.
"	AB 204	1967	9500	Guns, Rockets Torpedoes.	License from Bell (US)	Civilian & Military. Based on Iroquois.
Silvercraft	SH-4	1965	1900			Police, Agriculture, Military.
Meridionali	EMA-124	1970	2535			Three-seat.
JAPAN						
Fuji Hvy. Ind.	UHL-H	1967	9500	Guns, Rockets	License from Bell (US)	Military version.
"	FB-204	1967				Civilian version.
Mitsubishi	S-62	1961	8100		License from Sikorsky (US)	Search & Rescue, Patrol.
Kawasaki	HK-500 (369 HS)	1977	2550	Guns, Rockets	License from Hughes (US)	Hughes 500 Civilian version.
"	OH-6 (500 D)	1977	3000		License from Hughes (US)	Hughes 500 Military version.
"	BK 117	1981	6283		Co-devel.w/MBB (W. Germany)	Utility. Mil. version planned.
"	KH-4	1962	2850		Version of Bell (US) Mod.47	Mil/Civil, Police, Rescue.

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Manufacturer	Model	Year Entered Service	Gross Take-off Weight-lbs	Weapons	Other Producing Nations	Remarks
POLAND						
Panstwowe	SM-1	1955	5636		License from Soviet Union	Polish-produced Mi-1. Civil and Military uses.
Zaklady Lotnicze (PZL)	SM-2		5644			
	Mi-2	1965	7826	Mi-2 Military versions can carry 4 AT-3 missiles, guns, rockets.	License from Soviet Union	Twin-engine. Some with Allison Engines (US)
"	Mi-2M	1965	7826	"		Developed in Poland.
WEST GERMANY						
Messerschmitt-Boelkow-Blohm (MBB)	BO 105 CB/LS	1970 (LS 1982)	2769-3003	Up to 6 HOT ATGMs	LS model to be built in Canada	LS is hot weather/high altitude version. Twin engine
"	BK 117	1981	6283		Japan, Joint dupt.w/Kawasaki	Twin engine. Military version planned.
Technik-Munchen	Sky-Trac I	1969	3306			Agriculture, passenger, cargo
"	Sky rider	1973	3306			Upgrade of Sky-Trac
USSR						
Kamov	Ka-26 Hoodlum)	1970	7165			Agriculture, cargo, up to 7 passengers. Ship-borne version operates with fishing fleets. In service in 15 countries.
Mil	Mi-1 (Hare)		4960		Poland	
"	Mi-2	1965	7826	ATGMs, Rockets Guns	Poland	Twin-engine.

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Manufacturer	Model	Year	Gross Take-off Weight-lbs	Weapons	Other Producing Nations	Remarks
ARGENTINA Cicare Aeronautica	CH III Colibri (now Cicare CK 1)	1977	1760			Civilian Utility. 1-3 seats.
RACA	RACA- Hughes 500	1969	3000	Guns, Rockets, ATGMs)	License from Hughes (US)	Civilian or military.
BRAZIL Helibras	HB 315 Gaviao	1972	5070		License from Aerospatiale (France)	Version of Llama.
"	HB 350	1978	4740-520		"	Twin-engine; version of Ecureuil.
YUGOSLAVIA SOKO	Gazelle	1971	4415	4 TOW or 6 HOT ATGMs, guns, rockets. Also: SAM-7s for-air-to-air combat.	License from Aerospatiale (Fr.)	
ROMANIA	IAR 316 (Alouette II)	1968	4960	MGs, ATGMs Torpedoes	License from Aerospatiale (Fr.)	